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On the Pieridae fauna of Chiang Mai Province in North Thailand (*Lepidoptera*)¹

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Abstract: Kemal, M., Leksawasdi, P. & A.Ö. Koçak, On the Pieridae fauna of Chiang Mai Province in North Thailand (*Lepidoptera*). *Cent. ent. Stud., Misc. Pap.* 134: 1-8, 21 figs.

This article deals with the occurrence of the pierid species in Chiang Mai Province in North Thailand. Totally 44 species are reported in the Province. Recorded species by the authors in the Chiang Mai University Campus are marked. *Pieris (Artogeia) rapae* L. is reported as new to Thailand. An illustrated determination key at specific level is arranged. Early stages of *P. rapae* and allied species are briefly described, illustrated and discussed. Larval foodplant of *P. rapae* is reported here for the first time.

Keywords: *Pieridae*, fauna, early stages, Chiang Mai, North Thailand.

The first comprehensive study on the *Pieridae* of Thailand was published by Pinratana (1983). In his work, Pinratana reported only three species in the genus *Pieris* Schrank (s.l.). *Pieris (s.str.) brassicae* (Linnaeus) is represented by the subspecies *nepalensis* Doubleday in South East Asia, including northern Thailand. Among the pierid species in Thailand, this is not only the largest species, but also easily distinguishable one, comparing with the others, *Pieris (Artogeia) canidia* Sparr., and *Pieris (Artogeia) melaina* Röber. The latter two species are relatively smaller than *P. brassicae*. *Pieris canidia* Sparr. is recorded in various countries of South East Asia. It is represented by the subspecies *indica* Evans in northern Thailand. The third species, *Pieris (Artogeia) melaina* Röber is reported from Chiang Mai by Pinratana for the first time as “*Artogeia napi montana* Verity” (Pinratana, 1983). At the same time, there is another specimen of *P. melaina* preserved in Insect Collection of Chiang Mai University. Huttacharern & Tubtim (1995) listed the same species in the Checklist of Forest Insects in Thailand, without any information.

The first author of the present article found an egg laying female of the species *Pieris (Artogeia) rapae* (Linn.) in the Campus area of Chiang Mai University, during her field studies in March-May, 2006. She bred caterpillar on the natural food-plant, chosen by the female specimen, and obtained a fresh male after a period of a month. This record was the first reliable one for the species *Pieris (Artogeia) rapae* in North Thailand. During our stay in Chiang Mai, we found also a very damaged female of *rapae* by the ants in the city center.

¹ Results of the Memorandum between ISTRD (CMU) and the CESA, Nr. 6

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Pieris rapae (Linnaeus, 1758) in North Thailand

During her investigation on the butterflies of Chiang Mai University Campus, the first author observed a female *Pieris rapae* laying eggs (15 April 2006) on *Cleome ruditosperma* (Capparaceae) (Figs. 1-3).



Figs. 1-2. Female of *Pieris* (*Artogeia*) *rapae* laying egg on the foodplant (left); laid eggs (right). Photos M.Kemal (Cesa, 2006).



Figs. 3-6: From left to right 3 and 4. Foodplant of *Pieris* (*Artogeia*) *rapae*, *Cleome ruditosperma* (Capparaceae) (left); full grown caterpillar (right). 5 and 6. Pupa of *Pieris* (*Artogeia*) *rapae* Photos M.Kemal (Cesa, 2006).

But, she could breed only one male caterpillar (Fig. 4). About two weeks later, full grown caterpillar (1 May 2006) pupated (3 May 2006) (Figs. 5, 6). Within less than a week, a male butterfly emerged. At the same period the author observed two different pierid caterpillars on *Cleome ruditosperma*, i.e., *Appias lynchida* (figs. 16-18) and *Pieris* (*A.*) *canidia* (figs. 19-21). In order to prevent a possible confusing with those of *Pieris* (*A.*) *rapae*, their caterpillars and pupae are also illustrated in this article.

Pieris (*Artogeia*) *rapae* Linn., ssp.

Brief description of male (figs. 7, 8): This specimen is larger than West and Central Asiatic subspecies, inhabiting in Turkey, Iran, Pakistan, Kazakhstan and Uighur Ili, represented in the Cesa Collection. It approaches to some degree to ssp. *crucivora* from Japan (present also in Taiwan), but there are some remarkable differences.

Apical black marking very large, inner margin angulated; two postdiscal black spots on fore-, and one black spot on costal margin of hindwing well developed; underside of forewing ground colour whitish; apical area pale yellowish its inner margin slightly suffused with black scales; post discal black spots better developed than those of upperside; basal part strongly suffused by yellow scales, covering most of the cell area, black scales

scattered at the same part of the forewing; ground colour of hindwing pale yellowish with no remarkable marking.



Figs. 7-8: From left to right *Pieris (Artogeia) rapae* (male) from CMU in Chiang Mai, North Thailand; upperside and underside Photo M.Kemal (Cesa, 2007).

Determination keys to the species of *Pieris* Schrank (♂♀)

1. Veins suffused by dark brown scales on both sides of the wings. *melaina* Röber (fig.9).
- Veins not suffused by dark brown scales on both sides of the wings.
2. Outer margin of upperside hindwing with more or less developed black spots. *canidia* Sparr. (figs.10,11)
- Outer margin of upperside hindwing without black spots.
3. Apical black marking well developed, reaching to middle of outer margin of forewing.. *brassicae* Linn. (figs.12-15).
- Apical black marking well developed, but not reach to middle of outer margin of forewing. *rapae* Linn. (figs.7-8).



Figs. 9-11: From left to right *Pieris (Artogeia) melaina* (male) (ex CMU Coll.), *Pieris (Artogeia) canidia* (upperside & underside of female) from Chiang Mai Univ. Campus 10 5 2006, Photo M.Kemal (Cesa,2007).



Figs. 12-15: *Pieris (s.str.) brassicae nepalensis* Doubl. (top left & right upperside and underside of female) from Pakistan: North Pakistan, Gilgit Agency Bogeet, 2650m, upper Gulmit, Hunza valley 19 7 1987, A.Koçak leg. (Cesa coll.), (bottom left & right upperside and underside of male) from North Pakistan, Gilgit Agency S. of Nasirabad 2050m, Hunza valley 16 7 1987, A.Koçak leg. (Cesa coll.) Photo A.Koçak (Cesa,2007).



Fig. 16-18 left: Full grown caterpillar of *Appias lychnida* reared on the foodplant *Cleome ruditosperma* (Capparaceae), at CMU Campus (Thailand); middle: upperside of emerged male; right: underside of the same male, by M. Kemal in 2006 (Cesa).



Fig. 19-21 left: 4.instar larva of *P. canidia* (10 April 2006) bred on the foodplant *Cleome ruditosperma* (Capparaceae), at CMU Campus (Thailand); middle: prepupa of the same specimen (25 April 2006); right: pupa (26 April 2006) of the same specimen, by M. Kemal in 2006 (Cesa).

Annotated List of the Pieridae in Chiang Mai Province

- 1) **Appias (Catophaga) albina** (Boisduval, 1836) Synonym(s): *albina* Boisduval, 1836 Range (in code): NC NH NP IN PG Wau PH Bal Bon Pal Sga Stu Taw Mno Pal Bab Boh Ceb Dum Gui Luz Mar Mdo Neg ID Amb Tim Mlc Bia Bru Aru Kai AU QAU PG Dwn TH Cbi Chy Cbu Khn Nan Nna Nrt Nst Ths Nth Pkk Sat Yal CMA Dst Qs Cu0 Cu07 Knc Loe Nth Pht Sbu Tng Sgk Hya Tnc VN Ton Represented subspecies: **Appias (Catophaga) albina darada** (C.Felder & R.Felder, 1865) Synonym(s): *darada* C.Felder & R.Felder, 1865 Range (in code): TH Cbi Chy Cbu Khn Nan Nna Nrt Nst Ths Nth Pkk Sat Yal CMA Dst Qs Cu0 Cu07 Knc Loe Nth Pht Sbu Tng Sgk Hya Tnc CN Hn IN SI Ass MM VN Ton Ann Nk Adm
- 2) **Appias (Catophaga) lyncida** (Cramer, 1777) Synonym(s): *lyncida* Cramer, 1777 Range (in code): NP IN Ass Slo LK PH Sga Taw Gui Neg Pan Rom Sib Cuy Dum Luz Mar Mdo Mno Bal Cal Pal TH Cbi Cbu Cph CMA Dst Qs CDo CD2 Cu0 Cu06 Cu12 Knc Nna Nth Chy Nan Loe Nrt Uth Nst Ths Bnk Srt Sat Ntt Rng Sgk Tng VN Ton Tda Represented subspecies: **Appias (Catophaga) lyncida eleonora** (Boisduval, 1836) Synonym(s): *eleonora* Boisduval, 1836 Range (in code): TH Cbi Cbu Cph CMA Dst Qs CDo CD2 Cu0 Cu06 Cu12 Knc Nna Nth Chy Nan Loe Nrt Uth
- 3) **Appias (Lade) indra** (Moore, 1857) Synonym(s): *indra* Moore, 1857 Range (in code): NP IN LK TH CMA CDo TW PH Mno Pal Represented subspecies: **Appias (Lade) indra thronion** Fruhstorfer, 1910 Synonym(s): *thronion* Fruhstorfer, 1910 Range (in code): TH CMA CDo
- 4) **Appias (Lade) lalage** (Doubleday, 1842) Synonym(s): *lalage* Doubleday, 1842 Range (in code): CN Hn IN MM MY PK SI TH Loe CMA Int Nst Chw VN Ton Tda NP Ass Represented subspecies: **Appias (Lade) lalage lalage** (Doubleday, 1842) Synonym(s): *lalage* Doubleday, 1842 Range (in code): CN Hn IN MM MY PK SI TH Loe CMA Int Nst Chw VN Ton Tda NP Ass
- 5) **Appias (Tachyris) nero** (Fabricius, 1793) Synonym(s): *nero* Fabricius, 1793 Range (in code): SI IN MM SG MY PH Boh Din Ley Mno Pao Sam Bas Ceb Neg Pan Sib Bon Sga Stu Luz Mar Mas Mdo Bal Pal TH Pgg Nst Ths Rng Tng Yal Sgk Hya Tnc Phu Chy Cbi CMA CDo Phr VN Ton Tda ID Ja Sum Bor Nia Clb Represented subspecies: **Appias (Tachyris) nero galba** Wallace, 1867 Synonym(s): *galba* Wallace, 1867 Range (in code): SI IN MM TH Chy Cbi CMA CDo Phr
- 6) **Appias (s.str.) lalassis** Grose-Smith, 1887 Synonym(s): *lalassis* Grose-Smith, 1887 Range (in code): TH CMA CDo Represented subspecies: **Appias (s.str.) lalassis lalassis** Grose-Smith, 1887 Synonym(s): *lalassis* Grose-Smith, 1887 Range (in code): TH CMA CDo
- 7) **Appias (s.str.) libythea** (Fabricius, 1775) Synonym(s): *libythea* Fabricius, 1775; *zelmira* Stoll, [1780] Range (in code): CN Hn IN LK MM MY PH Pj PK TH CMA Cu0 Cu01 Cu02 Cu03 Cu05 Cu07 Cu09 Cu10 Cu12 VN NP Represented subspecies: **Appias (s.str.) libythea libythea** (Fabricius, 1775) Synonym(s): *libythea* Fabricius, 1775; *zelmira* Stoll, [1780] Range (in code): CN Hn IN LK MM MY PH Pj PK TH CMA Cu0 Cu01 Cu02 Cu03 Cu05 Cu07 Cu09 Cu10 Cu12 VN NP
- 8) **Appias (s.str.) olferna** (Swinhoe, 1890) Synonym(s): *olferna* Swinhoe, 1890 Range (in code): NP TH Bnk CMA Cph Loe Nkh Nrt Nth Cbu Knc Nna Pht Rat Ntt SPa Nst Ths Sbu Tng Phr Sgk Hya PSu Uth PH Boh Ceb Jol Luz Mar Mdo Mno Neg Pal
- 9) **Catopsilia pomona** (Fabricius, 1775) Synonym(s): *pomona* Fabricius, 1775; *crocale* Cramer, [1775]; *jugurtha* Cramer, [1777]; *catilla* Cramer, 1779; *hilaria* Stoll, 1781; *lalage* Herbst, 1792; *alcmeone* Fabricius, 1793; *titania* Fabricius, 1798; *jugurthina* Godart, 1819; *endeer* Boisduval, 1832; *phlegus* Wallace, 1867; etc. Range (in code): PH Ala Bab Bal Bat Bas Bil Boh Bon Bur Bus CagSul Cal Cam CmL CmM Cat Ceb Cts Cuy Din Dum Gui Hom Jol Ley Lub Luz Mar Mas Mdo Mno Neg Pal Pan Pao Pol Rom Sam Sar Sga Sia Sib Siq Sis Stu Tab Taw Tic LK IN Ass Slo MM Adm Nk AF PK Ci TH CMA Dst Qs Lmp Tht Represented subspecies: **Catopsilia pomona pomona** (Fabricius, 1775) [same data with the species].
- 10) **Catopsilia pyranthe** (Linnaeus, 1758) Synonym(s): *pyranthe* Linnaeus, 1758 Range (in code): PH Ala Bab Bal Bat Bas Bil Boh Bon Bur Bus CagSul Cal Cam CmL CmM Cat Ceb Cts Cuy Din Dum Gui Hom Jol Ley Lub Luz Mar Mas Mdo Mno Neg Pal Pan Pao Pol Rom Sam Sar Sga Sia Sib Siq Sis Stu Tab Taw Tic AF PK IN Ass Slo NP SI MM TH Nst Chw CMA CDo MY LK VN ID Represented subspecies: **Catopsilia pyranthe pyranthe** (Linnaeus, 1758) [same data with the species].
- 11) **Catopsilia scylla** (Linnaeus, 1763) Synonym(s): *scylla* Linnaeus, 1763; *etesia* Hewitson, 1867 Range (in code): AU NAU KY Tw PH Boh Ceb Din Gui Ley Mas Mno Neg Pan Pao Sam Bal Bon Luz Mar Mdo Pal Sga Stu Taw TH CMA Cu0 Cu01 Cu03 Cu05 Cu11 Cu12 CDo CD2 Nst Ths Represented subspecies: **Catopsilia scylla cornelia** (Fabricius, 1787) Synonym(s): *cornelia* Fabricius, 1787; *chengkong* Chen, 1974 Range (in code): TW PH Bal Bon Luz Mar Mdo Pal Sga Stu Taw TH CMA Cu0 Cu01 Cu03 Cu05 Cu11 Cu12 CDo CD2 Nst Ths
- 12) **Cepora nadina** Lucas, 1852 Synonym(s): *nadina* Lucas, 1852 Range (in code): TH Cbi Chy CMA CDo Knc Nrt Sbu Nna Loe Srt Nst Uth Sgk Hya Tnc SI IN MM VN Ton Tda Represented subspecies: **Cepora nadina nadina** Lucas, 1852 Synonym(s): *nadina* Lucas, 1852 Range (in code): TH Cbi Chy CMA CDo Knc Nrt Sbu Nna Loe Srt Nst Uth Sgk Hya Tnc SI IN MM VN Ton Tda
- 13) **Cepora nerissa** (Fabricius, 1775) Synonym(s): *nerissa* Fabricius, 1775 Range (in code): IN Ass MM MY TH Chy CMA Cnz Cz05 Cu0 Cu05 Cu07 Cu12 CDo Bnk Knc Nrt Pht Pkk TAK Cbi Cbu Loe Nth Phe Sbu Tng Uth VN Ton Tda Represented subspecies: **Cepora nerissa dapha**

- Moore,1879** *Synonym(s): dapha Moore,1879* *Range (in code):* IN Ass MM MY TH Chy Cma Cnz Cz05 Cu0 Cu05 Cu07 Cu12 CDo Bnk Knc Nrt Pht Pkk TAK Cbi Cbu Loe Nth Phe Sbu Tng Uth
- 14) **Delias (belisama-gr.) descombesi (Boisduval,1836)** *Synonym(s): descombesi Boisduval,1836* *Range (in code):* IN Ass Slo SI NP VN TH Tng Bnk Mae Nna Phe Ray Chy Cma Dst Cu0 Cu01 Cu02 Cu03 Cu04 Cu05 Cu07 Cu12 Qs Qs08 CDo CD2 Pap Mro Cbi Nth Nrt Pkk Sbu Uth Nst Ths LA MM CN Yu MY *Represented subspecies: Delias (belisama-gr.) descombesi descombesi (Boisduval,1836)* *Synonym(s): descombesi Boisduval,1836* *Range (in code):* IN Ass Slo VN LA MM CN Yu TH Bnk Mae Nna Phe Ray Chy Cma Cu0 Cu01 Cu02 Cu03 Cu04 Cu05 Cu07 Cu12 Dst Qs Qs08 CDo CD2 Pap Mro Cbi Nth Nrt Pkk Sbu Uth
- 15) **Delias (belladonna-gr.) belladonna (Fabricius,1793)** *Synonym(s): belladonna Fabricius,1793* *Range (in code):* Ch CN Hun Fkn Kig Sz Yu VN Ton Ann Meg Ass IN Slo Nag BT Khs Shn MM Tns NP SI LA Kma Kul Hp Sml AF TH Cma Dst Ds09 MY ID Clb Sum Dp. *Represented subspecies: Delias (belladonna-gr.) belladonna hedybia Jordan,1925* *Synonym(s): hedybia Jordan,1925* *Range (in code):* MM Tns TH Cma Dst Ds09 IN Ass Slo
- 16) **Delias (belladonna-gr.) berinda Moore,1872** *Synonym(s): berinda Moore,1872* *Range (in code):* IN Ass NP CN Yu TH Cma MM *Represented subspecies: Delias (belladonna-gr.) berinda boylaea Butler,1885* *Synonym(s): boylaea Butler,1885; amarantha Mitis,1893* *Range (in code):* NP TH Cma
- 17) **Delias (belladonna-gr.) lativitta Leech,1893** *Synonym(s): lativitta Leech,1893; shaanxiensis Chou,2001* *Range (in code):* MM TH Cma CN Kwa Fkn Cma Yu TW BT Ass Nag IN *Represented subspecies: (1) Delias (belladonna-gr.) lativitta parva Talbot,1937* *Synonym(s): parva Talbot,1937* *Range (in code):* BT TH Cma; (2) **Delias (belladonna-gr.) lativitta yunnana Talbot,1937** *Synonym(s): yunnana Talbot,1937* *Range (in code):* MM TH CN Cma
- 18) **Delias (belladonna-gr.) patrua Leech,1890** *Synonym(s): patrua Leech,1890* *Range (in code):* MM Shn TH Cma CN Yu *Represented subspecies: Delias (belladonna-gr.) patrua shan Talbot,1937* *Synonym(s): shan Talbot,1937* *Range (in code):* MM Shn TH Cma CN Yu
- 19) **Delias (belladonna-gr.) sanaca Moore,1857** *Synonym(s): sanaca Moore,1857; flavalba Marshall,1882; confusa Talbot,1928* *Range (in code):* IN NP MM TH Cma CN Yu SI BT *Represented subspecies: Delias (belladonna-gr.) sanaca perspicua Fruhstorfer,1911* *Synonym(s): perspicua Fruhstorfer,1911* *Range (in code):* MM TH Cma CN Yu
- 20) **Delias (dorimene-gr.) agostina (Hewitson,1852)** *Synonym(s): agostina Hewitson,1852* *Range (in code):* IN SI Ass MM TH Cma Phr CN Yu Sz MY VN Ann Ton Tda *Represented subspecies: Delias (dorimene-gr.) agostina agostina (Hewitson,1852)* *Synonym(s): agostina Hewitson,1852* *Range (in code):* IN SI Ass MM TH Cma Phr CN Yu Sz
- 21) **Delias (hyparete-gr.) hyparete (Linnaeus,1758)** *Synonym(s): hyparete Linnaeus,1758* *Range (in code):* MY Bor Adm IN Ass Slo NP MM TH Cph Phu Nst Sgk Hya PSu Tng Cma Cu0 Cu01 Cu07 Pap Mro Nth Non Nrt Nan Pht Pkk TAK Mhs Sbu Cbi Bnk LA VN CN Hn Yu ID Sum Btu Btg Nia Bgk Ja Bli Sip Sme Lb Kgn Baw PH Bal Dum Cal Pal Cag Sul Jol Boh Ceb Ley Luz Mar Mdo Neg *Represented subspecies: Delias (hyparete-gr.) hyparete indica Wallace,1867* *Synonym(s): indica Wallace,1867* *Range (in code):* IN Ass Slo NP MM TH Cma Cu0 Cu01 Cu07 Cu12 CDo CD2 Pap Mro Nth Non Nrt Nan Pht Pkk TAK Mhs Sbu Cbi Bnk LA VN CN Hn Yu
- 22) **Delias (pasithoe-gr.) acalis (Godart,[1819])** *Synonym(s): thysbe Cramer,[1779] (homonym); acalis Godart,[1819]; flavivestis Choe et al.,2001.* *Range (in code):* TH Cma Dst CDo LA IN Ass Slo NP CN MY Prk VN Ton Tda *Represented subspecies: Delias (pasithoe-gr.) acalis pyramus Wallace,1867* *Synonym(s): pyramus Wallace,1867* *Range (in code):* IN NP TH Cma Dst CDo
- 23) **Delias (pasithoe-gr.) pasithoe (Linnaeus,1758)** *Synonym(s): pasithoe Linnaeus,1758; aglaia Linnaeus,1758 nec Linn.,1758; lucina Butler,1869; basialba Chou,2001.* *Range (in code):* TW TH Cma Cu0 Cu01 Cu07 Cu12 Dst Qs CDo CD2 Pap Mro Knc Phe Loe Rat Tng Yal Nst VN Ton Tda Ann PH Luz Mno Pal Bal MY Bor MM CN Yu Kwt IN Ass Slo NP CN Hn ID Ja Nia Baw Sum Sip Sme Btg Bgk *Represented subspecies: (1) Delias (pasithoe-gr.) pasithoe pasithoe (Linnaeus,1758)* *Synonym(s): pasithoe Linnaeus,1758; aglaia Linnaeus,1758 nec Linnaeus,1758; lucina Butler,1869; basialba Chou,2001.* *Range (in code):* MM CN Yu TH Cma Cu0 Cu01 Cu07 Cu12 Qs Dst CDo CD2 Pap Mro Phe; (2) **Delias (pasithoe-gr.) pasithoe thyra Fruhstorfer,1895** *Synonym(s): thyra Fruhstorfer,1895; tonkiniana Fruhstorfer,1905; #addenda Dufrene,1947; #fasciata Dufrene,1947 nec Rothschild,1894.* *Range (in code):* VN Ton TH Cma Dst Qs CDo CD2 Knc Loe
- 24) **Delias (singhapura-gr.) agoranis Grose-Smith,1887** *Synonym(s): agoranis Grose-Smith,1887* *Range (in code):* TH Uth Cma MM Tns LA *Represented subspecies: Delias (singhapura-gr.) agoranis agoranis Grose-Smith,1887* *Synonym(s): agoranis Grose-Smith,1887* *Range (in code):* TH Uth Cma MM Tns LA
- 25) **Dercas verhuelli (Hoeven,1839)** *Synonym(s): verhuelli Hoeven,1839* *Range (in code):* IN Ass Nag SI BT CN Hn VN Ton Tda MM Shn Tns TH Cma CDo Loe *Represented subspecies: Dercas verhuelli doubledayi Moore,1905* *Synonym(s): doubledayi Moore,1905; menandrus Fruhstorfer,1910* *Range (in code):* IN SI BT TH Cma CDo Loe
- 26) **Eurema (Terias) blanda (Boisduval,1836)** *Synonym(s): blanda Boisduval,1836* *Range (in code):* LK IN Ass Slo BD Syl SI BT MM TH Cma Cu0 Cu01 Cu07 Cu09 Cu10 Cu12 CDo Nrt Pkk Sgk Hya Tnc MY Lkw ID Sum Ja Bli Egg Btg Bor Mlc Ij Tim Amb PG Clb Sgh Bng Sul Tal PH Boh Ceb Ley Neg Pao Sam Bas Bon Cal Din Mno Pal Stu Taw Luz Mdo Boh Ceb Ley Neg Pao Sam *Represented subspecies: Eurema (Terias) blanda silhetana (Wallace,1867)* *Synonym(s): silhetana Wallace,1867; heliophila Butler,1883; grandis Moore,1906* *Range (in code):* IN Djl SI Ass Meg Khs Slo BT BD Syl MM TH Cma Cu0 Cu01 Cu07 Cu09 Cu10 Cu12 CDo Nrt Pkk Sgk Hya Tnc
- 27) **Eurema (Terias) hecabe contubernalis (Moore,1886)** *Synonym(s): contubernalis Moore,1886; patruelis Moore,1886; fraterna Moore,1886; merguiana Moore,1886; kana Moore,1886; lacteola Distant,1886; #sarinoidea Fruhstorfer,1910.* *Range (in code):* IN SI MM Mrg MY SG TH Cma Dst Qs Cu0 Cu01 Cu07 Cu09 Cu10 CDo CD2 Cnz Cz11 Dsk Hpt Bnk Nsa Nst Ths Sya Loe Pbu Ntt SPa Sgk Hya Tnc PSu
- 28) **Eurema (s.str.) brigitta fruhstorferi (Moore,1906)** *Synonym(s): fruhstorferi Moore,1906* *Range (in code):* MY TH Ray Cma Dst Ds09 Cu0 Cu01 Cu12 Qs Int VN Ton Ann
- 29) **Eurema (s.str.) laeta (Boisduval,1836)** *Synonym(s): laeta Boisduval,1836; sana Butler,1877; lineata Miskin,1889* *Range (in code):* AU QAU SI BT IN Ass Slo PH Luz TH Pbu Cma CDo ID Tim Kai *Represented subspecies: Eurema (s.str.) laeta sikkima Corbet & Pendlebury,1932* *Synonym(s): sikkima Corbet & Pendlebury,1932* *Range (in code):* IN BT SI TH Pbu Cma CDo
- 30) **Eurema andersoni (Moore,1886)** *Synonym(s): andersoni Moore,1886* *Range (in code):* LK BT SI IN Adm PH Pal MM Mrg MY Lkw TH Cma Cu0 Cu05 Cu12 CDo CD2 Cnz Cz11 Dst Ds09 Pap Mro Nst Ths Nrt Kao Ntt SPa ID Sum Bor TW *Represented subspecies: Eurema andersoni andersoni (Moore,1886)* *Synonym(s): andersoni Moore,1886* *Range (in code):* MM Mrg MY Lkw TH Cma Cu0 Cu05 Cu12 CDo CD2 Cnz Cz11 Dst Ds09 Pap Mro Nst Ths Nrt Kao Ntt SPa ID Sum Bor
- 31) **Eurema novapallida Yata,1992** *Synonym(s): pallida Shirozu & Yata,1982 nec Chavann.,1850; novapallida Yata,1992* *Range (in code):* MM TH Cma Int Dst Mae Cbi Nrt Nan Dpk LA VN Ann *Represented subspecies: Eurema novapallida novapallida Yata,1992* *Synonym(s): pallida Shirozu & Yata,1982 nec Chavann.,1850; novapallida Yata,1992* *Range (in code):* MM TH Cma Int Dst Mae Cbi Nrt Nan Dpk LA VN Ann
- 32) **Eurema sari (Horsfield,1829)** *Synonym(s): sari Horsfield,1829* *Range (in code):* IN MM Mrg ID Ja Egg PH Bal Pal MY Bor TH Cma Cu0 Cu01 Cu12 CDo CD2 Sgk Hya PSu Nst Chw VN Ton
- 33) **Eurema simulatrix Staudinger,1891** *Synonym(s): simulatrix Staudinger,1891* *Range (in code):* PH Boh Ley Mno Pal TH Ntt SPa Nst Nna Cma Cu0 Cu12 Qs Qs03 Int MY Pen Lkw Bor Sbh Kba ID Sum Ja Clb MM Tns *Represented subspecies: Eurema simulatrix tecmessa (De Nicéville,1894)* *Synonym(s): tecmessa De Nicéville,1894; #stockleyi Corbet & Pendlebury,1932* *Range (in code):* MM Tns TH Ntt SPa Cma Cu0 Cu12 Qs Qs03 Int Nst Nna MY Pen Lkw Bor Sbh Kba ID Sum

- 34) **Gandaca harina (Horsfield,1829)** Synonym(s): *harina Horsfield,1829* Range (in code): IN MM Ass CN Adm TH CMA PH Bas Sga Taw Ala Bab Bal Bat Bil Boh Bon Bur Bus CagSul Cam Cml CmM Cat Ceb Cts Cuy Din Dum Gui Hom Jol Ley Lub Luz Mar Mas Mdo Mno Neg Pan Pao Pol Rom Sam Sar Sga Sia Sib Siq Sis Stu Tab Tic Cal Pal Clb Sul ID Sum Ja Bor MY Represented subspecies: **Gandaca harina burmana Moore,[1906]** Synonym(s): *burmana Moore,[1906]* Range (in code): MM TH CMA Dst Qs
- 35) **Hebomoia glaucippe (Linnaeus,1758)** Synonym(s): *glaucippe Linnaeus,1758* Range (in code): PH Boh Mas Neg Pan Ceb Cuy Dum Bab Bat Luz Mdo Bon Din Jol Ley Mno Pao Sam Sga Stu Taw Bal Cal Pal Mar Pol ID Mti Hm Bch Ob Tim TH CMA Dst Cu0 Cu01 Cu10 Qs Cnz Cz03 Dsk Hpt IN MM MY SG CN Hn LK Adm Nk Nia Sum Bor Ja Bli Kgn Lb Clb Sla Sba Kla Alo Flo TW Represented subspecies: **Hebomoia glaucippe glaucippe (Linnaeus,1758)** Synonym(s): *glaucippe Linnaeus,1758* Range (in code): CN MM TH CMA Dst Cu0 Cu01 Cu10 Cu12 Qs Cnz Cz03 CDo CD2 Pap Mro Dsk Hpt Nrt Sbu Bnk Cbi Tng Yal CN Hn
- 36) **Ixias pyrene (Linnaeus,1764)** Synonym(s): *pyrene Linnaeus,1764; aenippe Cramer,[1779]* Range (in code): AF CN HK LK IN Ass Slo Adm PK Cp Ci Bl Pj Kma Bl Sd Drm TH CMA Cu0 Cu01 Cu10 Cu11 Cu12 CDo Bnk Nst Ths Cbi Nkh MY Prk MM Mrg TW VN Ton Tda Ann Represented subspecies: **Ixias pyrene verna Druce,1874** Synonym(s): *verna Druce,1874* Range (in code): MM Mrg MY TH CMA Cu0 Cu01 Cu10 Cu11 Cu12 CDo Bnk Nst Ths Cbi
- 37) **Leptosia nina (Fabricius,1793)** Synonym(s): *nina Fabricius,1793; comma Fruhstorfer,1902* Range (in code): IN MM LK Adm SG MY Lkw AU PH Sga Stu Taw Luz Jol Bas Cal Ceb Cuy Mdo Mno Pal Pan ID Sum Bgk Flo Lb TH CMA Cml Dst Cu0 Cu01 Cu02 Cu10 Cu07 Dsk Hpt Qs CDo CD2 Cbi Knc Nna Chy Lop Nrt Nth Pht Sbu Pgg Nst Sgk Hya Yal TW Nk Ja Bli Lb Sbw Flo Kla Tan Clb Sol Represented subspecies: **Leptosia nina nina (Fabricius,1793)** Synonym(s): *nina Fabricius,1793; comma Fruhstorfer,1902* Range (in code): IN MM LK Adm MY Lkw TH Cbi Knc Nna Chy Lop Nrt Nth Pht Sbu Pgg Nst Sgk Hya PSu CMA Dst Qs Cml Cu0 Cu01 Cu02 Cu10 Cu07 Cu12 CDo CD2 Dsk Hpt
- 38) **Pareronia anais (Lesson,1837)** Synonym(s): *anais Lesson,1837; #lutea Eliot,1978* Range (in code): MM TH CMA Cu0 Cu01 Cu11 Cu12 Dst Qs CDo CD2 MY Represented subspecies: **Pareronia anais anais (Lesson,1837)** Synonym(s): *anais Lesson,1837; #lutea Eliot,1978* Range (in code): MM TH CMA Cu0 Cu01 Cu11 Cu12 Dst Qs CDo CD2 MY
- 39) **Pieris (Artogeia) canidia (Sparrman,1768)** Synonym(s): *canidia Sparrman,1768* Range (in code): AF Ahw CN Feg Fkn Gg Gn Haz HK Hk Hn Hnn Hpe Hph Hun IMn IN Ass Slo Jn Kab KG Kgs Kig KK KP Kst Kwa Kwt KwT Ld Lng Mc NHu Nu Pag Phn PK Ci Kab Mre Pm SG She Shs SI Stg Sz Ti Tkg Ton TW Ui VN Yu RU Vv Kst SI Ug T-S NP TH CMA Cml Cu0 Cu07 CDo Int Qs Ds08 Represented subspecies: **Pieris (Artogeia) canidia indica Evans,1926** Synonym(s): *indica Evans,1926* Range (in code): AF Ci Haz Hk IN Ass Slo Kab Ld NP Nu Pag PK Mre TH CMA Cml Cu0 Cu07 Dst Ds08 CDo Int Qs Phr Loe
- 40) **Pieris (Artogeia) melaina Röber,1907** Synonym(s): *melaina Röber,1907; montanus Verity,1908* Range (in code): NP IN SI Hp TH CMA Cu0 Int Dst Doi LA L13 L31 L38 L41 Represented subspecies: **Pieris (Artogeia) melaina melaina Röber,1907** Synonym(s): *melaina Röber,1907; montanus Verity,1908* Range (in code): NP IN SI Hp TH CMA Cu0 Int Dst Doi LA L13 L31 L38 L41
- 41) **Pieris (Artogeia) rapae (Linnaeus,1758), ssp.** Range (in code): TH CMA Cu0 Cu07 Phy Nuc
- 42) **Pontia daplidice moorei (Röber,1907)** Synonym(s): *moorei Röber,1907* Range (in code): Adr AF Hk Kab Kbb Ld Nu Pag PK Cp Ci Pnj Bl Ti Ch NP TH CMA CDo
- 43) **Prioneris philonome (Boisduval,1836)** Synonym(s): *philonome Boisduval,1836* Range (in code): SI IN MM CN TH Cbi Cph Pht Rat CMA CDo Pgg Phu VN Ton Tda Represented subspecies: **Prioneris philonome clemathe (Doubleday,1846)** Synonym(s): *clemathe Doubleday,1846* Range (in code): TH Cbi Cph Pht Rat CMA CDo Pgg Phu
- 44) **Prioneris thestylis (Doubleday,1842)** Synonym(s): *thestylis Doubleday,1842; seta Moore,1857; watsoni Hewitson,1868; jugurtha Fruhstorfer,1910* Range (in code): IN Ass Slo TH Cbi CMA Cu0 Cu10 CDo Chy MM Hnn CN Mus NP TW VN Ton Tda Represented subspecies: **Prioneris thestylis thestylis (Doubleday,1842)** Synonym(s): *thestylis Doubleday,1842; seta Moore,1857; watsoni Hewitson,1868; jugurtha Fruhstorfer,1910* Range (in code): IN Ass Slo TH Cbi CMA Cu0 Cu10 CDo Chy MM Hnn CN Mus NP TW VN Ton Tda

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